#4

SEQUENCE LISTING

<110> BALDWIN, Ethan T.
HARRIS, Melissa S

<120> CRYSTALLIZATION AND STRUCTURE OF STAPHYLOCOCCUS AUREUS PEPTIDE DEFORMYLASE

<130> 268.6317 0101

<140> 09/896,580
<141> 2001-06-29

<150> 60/215,555
<151> 2000-06-30

<160> 11

<170> PatentIn version 3.1

<210> 1
<211> 213
<212> PRT
<213> Staphylococcus aureus

<400> 1

Met Tyr Glu Tyr Leu Asn Asn Leu Phe Thr Val Ile Gln Leu Lys Gln
1 5 10 15

Ile Lys Ile Arg Lys Val Gln Tyr Met Leu Thr Met Lys Asp Ile Ile
20 25 30

Arg Asp Gly His Pro Thr Leu Arg Gln Lys Ala Ala Glu Leu Glu Leu
35 40 45

Pro Leu Thr Lys Glu Glu Lys Glu Thr Leu Ile Ala Met Arg Glu Phe
50 55 60

Leu Val Asn Ser Gln Asp Glu Glu Ile Ala Lys Arg Tyr Gly Leu Arg
65 70 75 80

Ser Gly Val Gly Leu Ala Ala Pro Gln Ile Asn Ile Ser Lys Arg Met
85 90 95

Ile Ala Val Leu Ile Pro Asp Asp Gly Ser Gly Lys Ser Tyr Asp Tyr
100 105 110

Met Leu Val Asn Pro Lys Ile Val Ser His Ser Val Gln Glu Ala Tyr
115 120 125

Leu Pro Thr Gly Glu Gly Cys Leu Ser Val Asp Asp Asn Val Ala Gly
130 135 140

Leu Val His Arg His Asn Lys Ile Thr Ile Lys Ala Lys Asp Ile Glu

145 150 155 160

Gly Asn Asp Ile Gln Leu Arg Leu Lys Gly Tyr Pro Ala Ile Val Phe
165 170 175

Gln His Glu Ile Asp His Leu Asn Gly Val Met Phe Tyr Asp His Ile
180 185 190

Asp Lys Asp His Pro Leu Gln Pro His Thr Asp Ala Val Glu Val His
195 200 205

Gln His His His His
210

<210> 2
<211> 168
<212> PRT
<213> Escherichia coli

<400> 2

Ser Val Leu Gln Val Leu His Ile Pro Asp Glu Arg Leu Arg Lys Val
1 5 10 15

Ala Lys Pro Val Glu Glu Val Asn Ala Glu Ile Gln Arg Ile Val Asp
20 25 30

Asp Met Phe Glu Thr Met Tyr Ala Glu Glu Gly Ile Gly Leu Ala Ala
35 40 45

Thr Gln Val Asp Ile His Gln Arg Ile Ile Val Ile Asp Val Ser Glu
50 55 60

Asn Arg Asp Glu Arg Leu Val Leu Ile Asn Pro Glu Leu Leu Glu Lys
65 70 75 80

Ser Gly Glu Thr Gly Ile Glu Glu Gly Cys Leu Ser Ile Pro Glu Gln
85 90 95

Arg Ala Leu Val Pro Arg Ala Glu Lys Val Lys Ile Arg Ala Leu Asp
100 105 110

Arg Asp Gly Lys Pro Phe Glu Leu Glu Ala Asp Gly Leu Leu Ala Ile
115 120 125

Cys Ile Gln His Glu Met Asp His Leu Val Gly Lys Leu Phe Met Asp
130 135 140

Tyr Leu Ser Pro Leu Lys Gln Gln Arg Ile Arg Gln Lys Val Glu Lys
145 150 155 160

Leu Asp Arg Leu Lys Ala Arg Ala
165

<210> 3
<211> 169
<212> PRT
<213> Haemophilus influenzae

<400> 3

Met Thr Ala Leu Asn Val Leu Ile Tyr Pro Asp Asp His Leu Lys Val
1 5 10 15

Val Cys Glu Pro Val Thr Lys Val Asn Asp Ala Ile Arg Lys Ile Val
20 25 30

Asp Asp Met Phe Asp Thr Met Tyr Gln Glu Lys Gly Ile Gly Leu Ala
35 40 45

Ala Pro Gln Val Asp Ile Leu Gln Arg Ile Ile Thr Ile Asp Val Glu
50 55 60

Gly Asp Lys Gln Asn Gln Phe Val Leu Ile Asn Pro Glu Ile Leu Ala
65 70 75 80

Ser Glu Gly Glu Thr Gly Ile Glu Glu Gly Cys Leu Ser Ile Pro Gly
85 90 95

Phe Arg Ala Leu Val Pro Arg Lys Glu Lys Val Thr Val Arg Ala Leu
100 105 110

Asp Arg Asp Gly Lys Glu Phe Thr Leu Asp Ala Asp Gly Leu Leu Ala
115 120 125

Ile Cys Ile Gln His Glu Ile Asp His Leu Asn Gly Ile Leu Phe Val
130 135 140

Asp Tyr Leu Ser Pro Leu Lys Arg Gln Arg Ile Lys Glu Lys Leu Ile
145 150 155 160

Lys Tyr Lys Lys Gln Ile Ala Lys Ser
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<210> 4
<211> 160
<212> PRT
<213> Bacillus subtilis

<400> 4

Met Ala Val Lys Lys Val Val Thr His Pro Ala Glu Val Leu Glu Thr
1 5 10 15

Pro Ala Glu Thr Val Thr Val Phe Asp Lys Lys Leu Lys Lys Leu Leu
20 25 30

Asp Asp Met Tyr Asp Thr Met Leu Glu Met Asp Gly Val Gly Leu Ala
35 40 45

Ala Pro Gln Ile Gly Ile Leu Lys Arg Ala Ala Val Val Glu Ile Gly
50 55 60

Asp Asp Arg Gly Arg Ile Asp Leu Val Asn Pro Glu Ile Leu Glu Lys
65 70 75 80

Ser Gly Glu Gln Thr Gly Ile Glu Gly Cys Leu Ser Phe Pro Asn Val
85 90 95

Tyr Gly Asp Val Thr Arg Ala Asp Tyr Val Lys Val Arg Ala Phe Asn
100 105 110

Arg Gln Gly Lys Pro Phe Ile Leu Glu Ala Arg Gly Phe Leu Ala Arg
115 120 125

Ala Val Gln His Glu Met Asp His Leu Asp Gly Val Leu Phe Thr Ser
130 135 140

Lys Ile Ser Lys Tyr Tyr Thr Glu Asp Glu Leu Ala Asp Met Glu Gly
145 150 155 160

<210> 5
<211> 216
<212> PRT
<213> Mycoplasma pneumoniae

<400> 5

Met Thr Lys Ile Leu Pro Val Ser Thr Ile Ser Ile Phe Arg Ile Ile
1 5 10 15

Leu Ile Leu Pro Gln Ile Asn Met Glu Leu Leu Pro Thr Lys Ala Trp
20 25 30

Leu Val Leu Asp Asp Val Lys Glu Ile Asn Glu Pro Thr Lys Pro Val
35 40 45

Gln Phe Pro Leu Asp Gln Ala Ser Leu Asp Cys Ile Ala Lys Met Met
50 55 60

Ala Tyr Val Asp Ala Ser Tyr Asn Gly Asp Ala Glu Lys Tyr Gly Ile

65 70 75 80

Ile Pro Gly Ile Gly Ile Ala Ala Asn Gln Ile Gly Tyr Trp Lys Gln
85 90 95

Met Phe Tyr Ile His Leu Met Asp Gly Gly Val Glu His Lys Cys Leu
100 105 110

Leu Ile Asn Pro Lys Ile Ile Asn Leu Ser Ala Asn Lys Ser Phe Leu
115 120 125

Lys Ser Gly Glu Gly Cys Leu Ser Val Pro Lys Met His Gln Gly Tyr
130 135 140

Val Ile Arg His Glu Trp Ile Thr Ile Thr Gly Phe Asp Trp Leu Gln
145 150 155 160

Gln Lys Glu Ile Thr Ile Thr Ala Thr Gly Leu Phe Gly Met Cys Leu
165 170 175

Gln His Glu Phe Asp His Leu Gln Gly Arg Phe Tyr Tyr His Arg Ile
180 185 190

Asn Pro Leu Asn Pro Leu Phe Thr Asn Lys Glu Trp Lys Val Ile Asn
195 200 205

Pro Ala Leu Pro Ser Asp Ser Glu
210 215

<210> 6
<211> 170
<212> PRT
<213> Staphylococcus aureus

<400> 6

Met Ala Ile Lys Lys Leu Val Pro Ala Ser His Pro Ile Leu Thr Lys
1 5 10 15

Lys Ala Gln Ala Val Lys Thr Phe Asp Asp Ser Leu Lys Arg Leu Leu
20 25 30

Gln Asp Leu Glu Asp Thr Met Tyr Ala Gln Glu Ala Ala Gly Leu Cys
35 40 45

Ala Pro Gln Ile Asn Gln Ser Leu Gln Val Ala Ile Ile Asp Met Glu
50 55 60

Met Glu Gly Leu Leu Gln Leu Val Asn Pro Lys Ile Ile Ser Gln Ser
65 70 75 80

Asn Glu Thr Ile Thr Asp Leu Glu Gly Ser Ile Thr Leu Pro Asp Val
85 90 95

Tyr Gly Glu Val Thr Arg Ser Lys Met Ile Val Val Glu Ser Tyr Asp
100 105 110

Val Asn Gly Asn Lys Val Glu Leu Thr Ala His Glu Asp Val Ala Arg
115 120 125

Met Ile Leu His Ile Ile Asp Gln Met Asn Gly Ile Pro Phe Thr Glu
130 135 140

Arg Ala Asp Arg Ile Leu Thr Asp Lys Glu Val Glu Ala Tyr Phe Ile
145 150 155 160

Asn Asp Arg Ser His His His His His His
165 170

<210> 7
<211> 172
<212> PRT
<213> Staphylococcus aureus

<400> 7

Met Leu Thr Met Lys Asp Ile Ile Arg Asp Gly His Leu Arg Gln Lys
1 5 10 15

Ala Ala Glu Ile Glu Leu Pro Leu Thr Glu Glu Lys Glu Thr Leu Ile
20 25 30

Met Arg Glu Phe Leu Val Asn Ser Gln Asp Glu Glu Ile Ala Lys Arg
35 40 45

Tyr Gly Gly Val Gly Leu Ala Ala Pro Gln Ile Asn Ile Ser Lys Arg
50 55 60

Met Ile Ala Val Leu Ile Pro Asp Asp Gly Ser Gly Lys Ser Tyr Asp
65 70 75 80

Leu Val Asn Pro Lys Ile Val Ser Ser Val Gln Glu Ala Tyr Leu Pro
85 90 95

Thr Glu Gly Cys Leu Val Asp Asp Asn Val Ala Leu Val His Arg His
100 105 110

Asn Arg Ile Ile Lys Ala Lys Asp Ile Glu Gly Asn Asp Ile Gln Leu
115 120 125

Arg Leu Lys Gly Tyr Pro Ala Ile Val Phe Gln His Glu Ile Asp His
130 135 140

Ile Asn Gly Val Met Phe Tyr Asp His Ile Asp Lys Asp His Pro Leu
145 150 155 160

Gln Pro His Thr Asp Ala Val Glu Val His His His
165 170

<210> 8
<211> 138
<212> PRT
<213> Escherichia coli

<400> 8

Ser Val Leu Arg Lys Val Ala Lys Pro Val Glu Glu Val Glu Ile Gln
1 5 10 15

Arg Ile Val Asp Met Phe Glu Thr Met Tyr Gly Ile Gly Leu Ala Ala
20 25 30

Thr Gln Val Asp Ile His Gln Arg Ile Ile Val Ile Asp Val Ser Glu
35 40 45

Asn Leu Ile Asn Pro Glu Leu Leu Glu Ser Gly Glu Thr Gly Ile Glu
50 55 60

Gly Cys Leu Ile Pro Glu Gln Arg Leu Val Pro Arg Ala Glu Lys Val
65 70 75 80

Ile Arg Ala Leu Asp Arg Asp Gly Lys Pro Phe Glu Leu Glu Ala Asp
85 90 95

Gly Leu Ile Ala Ile Cys Ile Gln His Glu Met Asp His Leu Val Gly
100 105 110

Lys Leu Phe Met Asp Tyr Leu Ser Pro Leu Lys Gln Gln Arg Ile Arg
115 120 125

Gln Lys Val Glu Lys Leu Asp Arg Leu Lys
130 135

<210> 9
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino Acid Residue

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<222> (2)..(2)
<223> Any Amino Acid

<400> 9

Gly Xaa Gly Leu Ala Ala
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<210> 10
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino Acid Residue

<400> 10

Glu Gly Cys Leu Ser
1 5

<210> 11
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Amino Acid Residue

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<223> Any Amino Acid

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<223> Any Amino Acid

<400> 11

Ile Xaa Xaa Gln His Glu Xaa Asp His Leu
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